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FILE CA

PN - 96:9436 CA
TI - Water removing apparatus for fuel cells
PA - Nissan Motor Co., Ltd., Japan
SO - Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

P.D. 11-01-82
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DT - Patent
LA - Japanese

IC - H01M8/06

CC - 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

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PN - JP56118275 A 800000
JP61007704B B 19860308

AB - The title fuel cells consist of an air electrode and a fuel electrode. The fuel cell reaction products are passed through an adsorbent column to recycle fuel and water, and the waste gas from the adsorber is heat exchanged with the fuel-cell air. The system is useful for a MeOH fuel cell.

ST - methanol fuel cell recycling

IT - Fuel cells
(methanol-air, with fuel and water recycling)

PUBLICATION NUMBER : 56118275
PUBLICATION DATE : 17-09-81

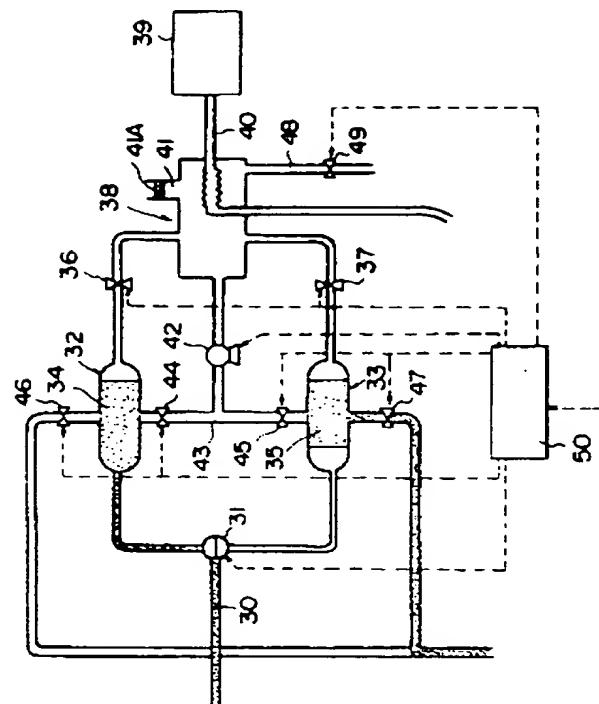
APPLICATION DATE : 22-02-80
APPLICATION NUMBER : 55021164

APPLICANT : NISSAN MOTOR CO LTD;

INVENTOR : NAKAMURA MASASHI;

INT.CL. : H01M 8/06

**TITLE : WATER-REMOVING DEVICE FOR
FUEL CELL**



ABSTRACT : PURPOSE: To enable the perfect utilization of the fuel, and thereby enhance the power-generating efficiency by providing absorbents which adsorb the fuel contained in an exhaustion gas sent from an air-electrode chamber, washing out with water the fuel adsorbed, and feeding the fuel washed out back into the electrolyte.

CONSTITUTION: An exhaustion gas consisting of water produced by the reaction carried out in an air-electrode chamber, air which has not undergone any reaction, and a fuel which passes through a diaphragm into the air-electrode chamber is selectively distributed to adsorption vessels 32 and 33 by means of a three-way cock 31. The adsorption vessels 32 and 33, which are provided with adsorbents 34 and 35 which adsorb only the fuel grains contained in the exhaustion gas, adsorb the fuel and make the air and the water which are contained in the exhaustion gas to be passed. The exhaustion gas passed through the adsorption vessels 32 and 33 is introduced into a heat exchanger 38, where the steam contained in the exhaustion gas is condensed into water, which is accumulated on the bottom of the heat exchanger 38. The accumulated water is sent with pressure into adsorption vessels 32 and 33 by means of a junction path 43, cocks 44 and 45, it washes out the fuel grains attached to the adsorbents 34 and 35, and the water containing the fuel is sent into the electrolyte of a fuel-electrode chamber.

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